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ABSTRACT

This journal issue summarizes teacher education trends which are related to curriculum development in Asia and other foreign countries. The tendency in Asia to unite all types and levels of teacher education under a single authority has the potential either for a cooperative state board with representatives from the universities, teaching profession, and state government or for a state-controlled board which might threaten academic freedom. While there are also trends in Asia toward upgrading qualifications for entering teacher education programs and broadening the curriculum, there are problems in getting competent teachers and balancing the curriculum among community development work, languages (especially in multilingual countries), and general and professional study. Other foreign countries are also said to share Asian educators' concern over whether or not all teachers should be required to study some subjects in depth, thereby giving them mobility between elementary and secondary levels. Trends and innovations cited outside of Asia include microteaching, simulation, feedback during practice teaching with walkie talkies, curriculum development centers, elimination of laboratory schools, 5-week projects to improve local school facilities, and staff borrowing between colleges and schools. (Related to SP 003 941, in this issue.) (LP)

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INNOVATIONS, TRENDS AND ISSUES RELATING TO CURRICULUM DEVELOPMENT IN TEACHER EDUCATION

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QUEZON CITY, PHILIPPINES

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— offers high-level short courses

— undertakes and promotes studies and research

— organizes periodical symposia and meetings of teacher educators

— promotes exchange of information on teacher education among institutions in the Region.

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INNOVATIONS, TRENDS AND ISSUES RELATING TO CURRICULUM DEVELOPMENT IN TEACHER EDUCATION

1. Introduction

The trends and issues relating to teacher education in the countries of the Asian region which have a bearing on curriculum development are briefly presented in this paper,[1] together with a summary of some interesting innovations, trends and issues in teacher education abroad which might help place our problems in better perspective and throw new light in the search for solutions. Limitations of space have left us with no alternative except, in some cases, merely to present facts or ideas without our own observations or the observations of others on them, but the references should always be available to the inquisitive reader for further explorations. The need for such explorations is realized in view of the fact that many trends and issues reflect developments in a particular socio-economic or political setting, a knowledge of which becomes necessary for an appraisal of its worth, particularly in the context of drawing out of it experiences to evaluate or help improving developments in a different set-up.

2. Trends in the Development of Teacher Education in Asia

2.1 A recent trend noticeable in some of the Asian countries is to bring all types and levels of teacher education under the control of a single authority. A Standing Committee on Teacher Education to be set-up by the University Grants Commission in collaboration with the National Council for Educational Research and Training in India and State Boards for Teacher Education to be set-up in each state were proposed by the Indian Education Commission (1966)[2] and the U.G.C. Committee, and some State Boards have already begun to function. These bodies are to coordinate the activities of universities, state governments and other agencies involved in teacher education, and thereby bring about a unified teaching profession with common objectives and common standards. They would also serve to break the existing isolation of teacher education institutions from the universities and the schools and the isolation of one level of teacher education from another. It is envisioned that ultimately teacher education at all levels will be the responsibility of universities, representatives of which will sit in the State Boards with representatives of the profession and the state governments. The proposals point the way not merely to promote the unification of the teaching profession but take it out of the monolithic control of the state or the universities.

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[1]The basis of this report is mainly, but not solely, the questionnaire returns from the participants in the Regional Meeting on Curriculum Development for Teacher Education in Asia, to be held at the Asian Institute for Teacher Educators, Quezon City, from 23 September to 3 October 1969. The returns received are from Afghanistan, Ceylon, China, Indonesia, Iran, Japan, Korea, Laos, the Philippines and Singapore.

[2]India. Ministry of Education. *Report of the Indian Education Commission* 1964-66 — *Education and National Development*, New Delhi, Government of India Press, 1966. pp. 68-71, 87f.

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Historically, in many countries of Asia, teacher education, especially primary teacher education, has been the concern of the state; and where the state has not been involved directly in promoting secondary education, the training of secondary school teachers has been primarily the function of universities. The absence of a coordinating authority has detrimentally affected progress of secondary education in a few countries (cf: Iran) while the trend towards the state assuming responsibility for the training of secondary school teachers is viewed with suspicion by the universities in some others (cf: Ceylon). The problem of evolving a healthy coordination between the state and the private agencies engaged in teacher training, particularly at the secondary level, is one which engages the serious attention of some governments today (cf: the Philippines), as the state has necessarily to step in actively for promoting secondary education within the next decade.

2.2 Though some countries in Asia have still not solved the problem of numbers (cf: Afghanistan, China, Laos, Indonesia), still, generally speaking, the trend everywhere is towards finding quality teachers for primary and secondary education. As a first step, there is an attempt in all countries to upgrade the qualification of the entrants to teacher training institutions and, where this is still lower than graduation from the secondary school for primary teacher training and graduation from the universities for secondary teacher training, there has been a trend towards increasing the number of years under training (cf: China, Korea, the Philippines).

2.3 Everywhere there is an attempt at reforming the curriculum to suit national objectives, enrich the curriculum to meet professional requirements in the context of an education for national development, and make it practical and realistic (cf: Laos, Singapore). The change of the medium of instruction in most countries has created the problem of producing suitable instructional materials, and in countries which are multi-lingual (cf: Singapore), made it the most serious problem; yet in some countries at least, simultaneously, progress is being achieved in modernizing methods of instruction by adopting new techniques including the utilization of mass media like radio and television for teaching. Community education, work education, practical arts like gardening and handicraft, fine arts like music and dancing are slowly finding a place in the curriculum in most countries. In-service training is resorted to more and more for enrichment programmes. With the demand for technical teachers following the introduction of diversified courses in secondary education, technical subjects are either introduced in the curriculum for secondary training or separate training courses are organized in these subjects for vocational teachers (cf: Singapore). Special education courses are also being introduced in some countries for the teaching of mentally and physically retarded children (cf: Japan). Student teaching programmes are also being revised, though they have yet to undergo drastic changes.

2.4 The practice of offering all subjects for all teachers of elementary grades is being reviewed, and in some countries, concentration or "peak" courses are also offered, in one of which at least the trainees could specialize, (cf: Japan, the Philippines). This enables the graduates of the training institutions to move into teaching in at least the lower grades of the secondary schools. As provision is gradually made in the training institutions to specialize in all the major subjects of the secondary school curriculum, it is possible that it may eventually lead to a unified training

course with a common curriculum for teachers of all grades, with options to enable movement of teachers from one level of school to another.

2.5 Separate institutions for the training of primary teacher educators have begun to be established (cf: Afghanistan, Ceylon).

3. Issues in Teacher Education in Asia

3.1 How far state control of teacher education can be consistent with academic freedom to make curricular changes and effectively modernize teacher education practices is an issue which needs study. In Japan, colleges are able to make curricular changes, only within the broad framework of the Education Certification Law; the question looms large today in Ceylon, Iran and the Philippines among other countries.

3.2 How to get professionally competent teachers is another important issue. This is complicated by the following problems:

(a) In some countries of Asia the level of the entrants to primary training intitutions is much lower than graduation from secondary school and all teachers in secondary schools are not graduates from universities. Professional training is wholly lacking for many of the teachers while some who claim to have been trained have gone through emergency training courses or short-term training courses only (cf: Afghanistan, Indonesia, Iran). There is urgent need to raise their general as well as professional qualifications. In-service courses, correspondence courses and short institutional courses are being tried for this but they have yet to become systematic, efficient and universally accepted.

(b) In the curriculum, a question which is hotly debated is whether there should be only a general course for all teachers of a nation or separate courses or separate options provided in the training of teachers for different localities in the country, for rural and urban areas and for tribal and trade schools. How to provide for the training of teachers for vocational subjects is also another problem.

(c) The need for facilitating mobility of teachers from one level of teaching to another is keenly felt and how best this can be taken care of is engaging the attention of curriculum planners. Concentration courses or peak courses organized in the Philippines and Japan offer a pointer.

(d) The requirement of "all subjects" for an elementary school teacher is proving too much of a task to be satisfactorily accomplished, partly because of the nature of the subjects like music and art and partly because of the advances in the fields of education and technology. How to get over this difficulty is posing a big problem.

(e) How to introduce teachers to research in education during their training period is not very clear, and yet the need is felt by all.

(f) The retention of trained teachers has become a difficult problem as they get better salaries if they move into other areas of service (cf: Korea, Laos).

3.3 Another important issue is how to frame the curriculum for teacher education making it functionally consistent with national aspirations and giving it a practical orientation without making the already over-crowded curriculum still more over-loaded. The claims of many languages in multi-lingual societies have to be weighed along with the claims of nation-building activities like community development work to become part of the new curriculum. The proper balance between general and professional education and the balance between the theory and practice of education have to be worked out. If possible, provision should be made in the curriculum for specialization which would enable movement from primary to secondary level teaching (cf: China, Indonesia) and vice-versa (in countries like the Philippines, where salary scales and required qualifications for teaching in elementary and secondary schools are almost equal).

3.4 An issue which has baffled educationists all along is the question of examinations. In most Asian countries, it is true to say that "the examination tail wags the education dog." And, while more and more of internal assessment is increasingly being advocated, still for one reason or another, centralized examinations are still in vogue in several countries and some at least see definite advantages in having them (cf: Afghanistan). How a proper evaluation system can be evolved, therefore, needs careful study.

3.5 Can teachers be better trained in separate institutes for teacher education which are autonomous degree-granting institutions than in universities? Four-year courses for primary and secondary school teachers have been organized in some of the countries, where secondary school graduates are admitted to prepare for a degree in education. The question is how far this training would make the teacher a scientist (in the social or physical sciences) as well as an educationist. It is feared that if it makes him as good a scientist as university education does, he may be attracted away from teaching (by those who pay him better), and if it does not, it brings the institution to disrepute as only second-rate students alone will enter it. Similarly, as long as the staff in these institutions do not enjoy the same status and salaries as those in universities, first rate men will not be available to teach in them. Again, if many of those who teach are scientists primarily and educationists only secondarily, it is open to question how far it would be advancing the professional competence of teachers. These problems need answers.

4. Trends Abroad

4.1 In Nigeria,[3] from the Institute of Education at Ibadan University, an associateship diploma is conferred upon primary school teachers after a year's study at the Institute. It is a course designed to improve the standards of non-graduate teachers who are leaders of primary education. Its intention is to help experienced persons to become leaders. Although the emphasis is on broadening mental horizons and developing powers of independent and critical thought, each student is expected to study some subjects in considerable depth. Once a week each student attends a tutorial class designed to help him with any part of his work, to develop his ability to think around a subject, to read selectively and critically and to write more cogently.

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[3] "Teacher Training in an African University," *Foreign Education Digest*, Vol. 31, No. 1, July-September 1966. p. 55.

"School practice" — a five-week project conducted at the end of the second term — aims at improving a school. It is not merely concerned with class teaching but is intended to help, advise, and raise school standards. Under the guidance of a lecturer, a group of associates sum up the school situation, pin-point the weaknesses and the areas where improvement is practical and take over the task of up-grading. Areas of improvement may include sanitation, vaccination, dental services, repairing furniture, providing charts and other teaching aids, sporting facilities and so on. This type of assistance is greatly appreciated by the teachers and helps to improve the relationship of the associates with school and community in a practical way.

4.2 The *Plowden Report* points out a trend which is gradually taking place in many countries in evolving a partnership between schools and teacher training institutions, and speaks of it as worth almost any effort to achieve.[4] It is the key to getting satisfactory arrangements made for teaching practice. It involves more than the acceptance of students for training. Initiative comes first from the college. It seeks to find ways in which the teacher's knowledge can contribute more fully to the students' training as well as the means by which the college can be of greater service to the schools. An increasing number of college lecturers make arrangements to teach regularly in schools. In this way they can share their experiences with children of differing ages and try out new ideas. This also provides the schools with fresh stimulus. Teachers also make a contribution to the college as visiting lecturers or discussion-group leaders.

4.3 In an attempt to modernize school curricula, many countries have set up, or are setting up, centres for curriculum development within, or associated with, schools. These offer an admirable setting for providing some of the essential experiences for students.

In some countries there is developing a much closer relationship between teacher education institutions and a wide range of cooperating schools. Such contacts are valuable as a way of bringing about integration of theory and practice.[5]

4.4 A relatively recent feature of the development of teacher education programmes is the growing importance attached to professional studies in history, philosophy, sociology and psychology as applied to education. Developments in these fields are tending to make these courses more and more specialized. Their suitability and relevance are often questioned. There is a need to ensure that, in level and approach, they are suited to their purpose and that psychology and sociology are related to to the realities of childhood and of family and community life in particular circumstances. This does not entail limiting their field but broadening it to include the activities of human behaviour and interaction as a whole of which the life of the school and classroom is only a part.[6]

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[4]Gt. Brit. Dept. of Education and Science. *Children and Their Primary Schools; A Report of the Advisory Council for Education (England)*, Vol. 1: The Report. London, Her Majesty's Stationery Office, 1967. p. 351.

[5]Unesco. Expert Committee on Teacher Education (for Primary and General Secondary Schools), Paris, 4-15 December 1967, *Final Report.* p.10.

[6]*Ibid.*

4.5 Research has an important contribution to make towards the solution of many of the problems that confront educators in all fields. There is a strongly flowing trend to make much greater use of it in all aspects of education. It has special significance in teacher education in regard to methods and techniques of teaching, use of materials, the conditions which mediate the transmission of attitudes and values, personality development, social skills and so on.[7]

4.6 At a time when there is a growing emphasis on the development of attitudes, values, skills and the use of knowledge, there is a growing realization of the need for evaluation procedures to measure these attributes as otherwise they tend to lose their significance in the eyes of students.

4.7 While there is a variety of procedures and techniques followed in the development of a curriculum, the concept of the "spiral curriclulum" as promulgated by Jerome Bruner, is receiving considerable attention. He emphasizes subject structure, fundamental concepts and sequencing.

The following ten concepts have been identified on this basis, as one way of providing the structure of the professional education sequences:

1. The teacher is a professional and should be a participant in decision-making.
2. The teacher is a reseacher.
3. The teacher is an individual.
4. Human relations principles are utilized by the teacher.
5. Social foundations provide insight into learning problems.
6. Understanding of the differences among children enhances the teaching-learning process.
7. A knowledge of learning theory is fundamental to good teaching.
8. Education is committed to a multiplicity of purposes.
9. Responsibility for education is distributed among a number of agencies including government.
10. Democracy in the classroom promotes desirable learning conditions.[8]

Rather than the acceptance of curricular materials that have long been in use and which appear to be sacrosanct, the educator is beginning to take a new look at his subject matter. He therefore poses questions like these — what is there about it which is most fundamental? What does the learner most need in order to continue his learning in the field without further teacher help? What does he most need in order to become self-instructive? What can we do to help him learn how to learn in the area? What is central and what is peripheral? These involve a careful look at the structure of what is to be taught.[9]

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[7] *Ibid.*, p. 16.

[8] Reavis, Charles A. and Whittacre, Frank R., "Professional Education of Teachers: A Spiral Approach," *Peabody Journal of Education*, Vol. 46, No. 5 March 1969. p. 259.

[9] Gorman, Burton W., "Changing Ideas and the Teacher," *Peabody Journal of Education*, Vol. 44, No. 4, January 1967. pp. 199-203.

4.8 A teacher must not only know a subject but know the different ways she can learn it, as well as children can learn it. An intense mix of substance and pedagogy is needed for this, and this cannot be had by a course in physics here and in educational psychology there. Learning should be married to what is being learnt — it is crucial to the teacher's effectiveness. "And that is the modern version of the curriculum project — a consortium of talents, involving not only the scholar, but the appropriate psychologists . . ., the film maker, the master teacher . . . the teacher of teachers, the apparatus designer, and the inventor of pedagogical games and toys. It is in the setting of such an establishment — a curriculum institute — that I would prefer to see the training of teachers take place."[10]

The merit of Bruner's proposal lies in the organized integration of how to teach and what to teach, which separates the Department of Education and the Departments of Arts and Science to this day. Method courses taught in separation from particular subject matter are empty. Foundation courses should make the professional education liberal in the sense that they should help teachers to examine the why, the what and the how of their school subjects and teach them accordingly.[11]

4.9 From the primordial germ cells which have already appeared it is safe to prophecy that, in the 21st century, the teacher trainee would have repudiated his dependency characteristics and so will have to be helped to learn through his own resources. Technology, associationist psychology, and the demands of necessity will provide do-it-yourself, or auto-educational experiences of the most effective nature. Most academic skills will be learnt and reinforced through educational "canning" at home. This will constitute "lower order education". The advent of educational automation will basically change the role of the professor, as did the advent of the printing press. The college centre will include massive audio-visual and automation centres and television and film auditoria, bringing every aspect of the universe as "live" and "canned" experiences to the student for self education. The student will experience learnings in vivo, and learn on the job, being placed in a school setting from the beginning by observing and participating in its activities. Flexibly scheduled seminars and individual conferences to guide and direct self-discovery will replace the formal fixed classes.[12]

5. Issues Abroad

5.1 Is it desirable that all student teachers be required to undertake a study in depth of one or two subjects of their main course?

Those who argue against this say that this is not necessary for teachers of a primary school or junior secondary school to study subjects at an advanced level as they will not need this knowledge in actual practice.

Those who favour such a study, in some depth, say that it forms an essential part of the equipment of any teacher. Such a study involves a systematic approach

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[10]Bruner, Jerome S., "On Teaching Teachers," *Current Issues in Higher Education.* 1964.

[11]Fen, Sing-Nan, "The Professional and Liberal Education of Teachers," *Peabody Journal of Education,* Vol. 45, No. 3, November 1967. pp. 158-161.

[12]Lemeshow, Seymour, "Teacher Education in 2015: A Projected Outline," *The Journal of Teacher Education,* Vol. 16, No. 2, June 1965. pp. 229-231.

to a discipline and provides resources of knowledge and judgment upon which they can draw as teachers and individuals and which need not necessarily be related to day-to-day work in the schools.[13]

5.2 Is it desirable that teaching subjects which are studied in depth be taken by a professor who is also giving instruction in the methodology of teaching it?

Some maintain it is necessary for the subjects to be approached from a point of view which has some kind of direct relevance for the future teachers. Others maintain that student teachers, no less than others, should be introduced to the methods and spirit of inquiry in their special fields and that it is the concepts and attitudes which derive from such studies that enable these subjects to be perceived as relevant by the future teachers. These difficulties and differences of viewpoint lie at the root of the controversies about whether separate professors are needed for teaching the subject and for giving instruction in the methodology of teaching it.[14]

5.3 Is the Labratory School Worth Saving?

In many countries the laboratory school has long been regarded as an integral part of a Teachers' College or College of Education within a University. Today there is a growing trend to do away with this type of school.

Those in favour of its retention support the idea that it acts as a source of experiment and innovation. Under a College of Education it can test a theory, apply expertise to every aspect of the research effort, exert adequate controls and measure failure or success with equal candour.

6. Innovations Abroad

6.1 Micro-teaching

Micro-teaching is a scaled-down teaching encounter, scaled in terms of class size (1-5 students) and time (5-20 minutes). In a typical micro-teaching lesson, a trainee will teach four students for five minutes while a video record is being made. The trainee will then view the tape, critique the lesson with his student supervisor and re-teach the lesson to a new group to see if he has improved.

The supervisor can focus his supervision more precisely. Micro-teaching can be controlled to provide a variety of situations as desired. Greater individualization is possible. They can be scheduled as needed, varying the time and the students for specific instructional purposes. Interns teach short lessons that will actually be included in longer full-scale classes during internship.

Experiments with micro-teaching have demonstrated that a high correlation exists between micro-teaching performance and performance in a full-sized classroom.

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[13]Gt. Brit. Dept. of Education and Sciences, *Children and Their Primary Schools; A Report of the Central Advisory Council for Education* (England), Vol. 1: The Report. London, Her Majesty's Stationery Office, 1967. pp. 344-345.

[14]Unesco. Expert Committee on Teacher Education (for Primary and General Secondary Schools), Paris, 4-15 December 1967, *Final Report.* pp. 2-3, 11.

Portable video tape recorders are used as a means of immediate feedback in the supervision of both micro-teaching and full classroom performance. It has been found that video tape recordings can be reliably substituted for live observations in the supervision of teachers. It opens up possibilities for enlarged supervision of teachers or students by staff members who have not been able to see the actual lesson.[15]

6.2 Using Simulation Techniques to Integrate Theory and Practice

The problem of providing teacher candidates with meaningful experiences which integrate theory and practice has been worrying teacher educators for a long time. An effective solution for some aspects of this problem is being found in a group of techniques called simulation. Simulation involves role-playing or gaming and may involve the use of referees and computers.

The steps in developing a role simulation are (1) identifying the role and purposes for which it is to be used; (2) identifying problems; (3) developing the setting; (4) developing the problems into incidents in the setting, and (5) programming the full simulation so as to fulfil the purposes.

In brief, a fictitious situation is presented through a filmstrip or in other ways and the trainees react to each of the problems raised and test the validitv of their responses through role-playing, discussion of other's experiences, etc. Much stimulation results from simulation and the different possible solutions to a problem become clear.[16]

6.3 Modifying Classroom Behaviour of Trainee Teachers with a Walkie Talkie

This is a study that was carried out in an endeavour to make "criticism" lessons more effective. Students often continued to make the same mistakes in subsequent lessons and it was hypothesized that this slow learning in the classroom situation was mainly due to lack of immediate reinforcement of the appropriate behaviour on the part of trainees.

In a normal "criticism" lesson the supervisor observes and makes a report which is discussed with the trainee preferably soon after the completion of the lesson. Some of the main difficulties in such an approach include the delay in reinforcement until some time after the lesson; the problem in relating this reinforcement in detail to specific parts of the lesson; problems arising out of the fact that commendation given at a later time cannot replace that supplied at the appropriate time; the inability of the supervisor to help students experiencing discipline problems and to direct correction of inappropriate behaviour.

The supervisor and trainee planned the use of the walkie talkie before each lesson. The following conclusions were drawn:

1. After the presence of the walkie talkie was explained to the pupils at the beginning of the lesson, little further notice of it was taken.

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[15]Allen, Dwight W., "A New Design for Teacher Education: The Teacher Intern Program at Standford University." *The Journal of Teacher Education*, Vol. 17, No. 3, Fall 1966. p. 297.

[16]Broadbent, Frank W., "Using Simulation Techniques to Integrate Theory and Practice, "*Malaysian Journal of Education*, Vol. 5, No. 1, June 1966. (For models for developing simulation techniques, refer to Null, Allen, *Dynamic Management Education*, Seattle, Management Education Associates, 1966.)

2. Communication from supervisor to trainee was easy.
3. Trainees reported the reassuring effects of approving remarks.
4. It was of assistance where class control was a continuing task.
5. It reduced tension, promoted a healthy relationship, yet allowed a good deal of advice to be offered.[17]

6.4 The Tutorial and Clinical Programme for Teacher Education

Convinced that what is needed is a breakthrough in the total pattern of teacher preparation based on fundamental changes in the conception, organization and procedures relating to teacher education, and not a mere tinkering with some aspect or other of it, the Northwestern University started experimenting with a Tutorial and Clinical Programme of Teacher Education in 1965.
The characteristics of this programme are:

1. Teacher education is the responsibility of the entire university and the co-operating school systems; control of the programme should be shared by the School of Education, the school systems, and the College of Arts and Sciences.
2. Those preparing to teach should have a general education, at least equal to that of the B.A. graduate in the College of Arts and Sciences.
3. Academic majors for high schoool teachers should be planned jointly by appropriate departments in the College of Arts and Sciences, representatives of schools systems, and professors of education.
4. High school teachers should be recommended for certification in only one field.
5. Elementary teachers should do advanced undergraduate work in two academic fields common to the curriculum in elementary schools.
6. All work in professional education should be given through group tutorials and related clinical experiences, thus eliminating formal courses in education.

The students will move through a sequence of planned tutorial experiences and complete the programme of clinical work over a four-year undergraduate period.[18]

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[17]Rowlands, Evan, "Modifying Classroom Behaviour of Trainee Teachers with a Walkie Talkie; A Research into the Feasibility of the Method," *The Australian Journal of Education*, Vol. 12, No. 3, October 1968. pp. 244-251. (This is also discussed in Reid. O.W., "Innovations in Teacher Education," *Newsletter from the Asian Institute for Teacher Educators (Sponsored by Unesco)*. Vol. 3, No. 3, December 1969. pp. 10-13,)

[18]Hazard, William R., et al. "The Tutorial and Clinical Program for Teacher Education," *The Journal of Teacher Education*, Vol. 18, No. 3, Fall 1967. pp. 268-267.

REFERENCES

I. *AITE Official Papers*

Asian Institute for Teacher Educators (Sponsored by Unesco). *Proforma — Guidelines for the Report of the Participants* (Regional Meeting of Teacher Educator in Asia. 23 September-3 October 1969, Quezon City.)

II. *Government Reports and Documents*

Gt. Brit. Dept. of Education and Science. *Children and Their Primary Schools; A Report of the Central Advisory Council for Educa tion England*). Vol. I: The Report. London: Her Majesty's Stationery Office, 1967.

India. Ministry of Education. *Report of the Education Commission* 1964-66; *Education and National Development.* India: Ministry of Education, 1966.

Unesco. Expert Committee on Teacher Education (For Primary and General Secondary Schools), Paris, 4-15 December 1967. *Final Report.* Paris: Unesco, 1968 (ED/CS/177/6).

III. *Periodical Articles*

Allen, Dwight W. "A New Design for Teacher Education: The Teacher Intern Program at Stanford University," *The Journal of Teacher Education.* Vol. 17, No. 3 (Fall, 1966), pp. 296-300.

Broadbent, Frank W. "Using Simulation Techniques to Integrate Theory and Practice," *Malaysian Journal of Education.* Vol. 5, No. 1 (June 1966).

Bruner, Jerome S. "On Teaching Teachers," *Current Issues in Higher Education.* 1964.

Fen, Sing-Nan. "The Professional and Liberal Education of Teachers," *Peabody Journal of Education.* Vol. 45, No. 3 (November, 1967), pp. 158-161.

Fortune, Jimmie C., et al. "The Stanford Summer Micro-Teaching Clinic, 1965." *The Journal of Teacher Education.* Vol. 18, No. 4 (Wi nter, 1967), pp. 389-393.

Gorman, Burton W. "Changing Ideas and the Teacher," *Peabody Journal of Education.* Vol. 44, No. 4 (January, 1967), pp. 199-203.

Hazard, William R., et al. "The Tutorial and Clinical Program for Teacher Education," The *Journal of Teacher Education.* Vol. 18, No. 3 (Fall, 1967), pp. 269-276.

Lemeshow, Seymour. "Teacher Education in 2015: A Projected Outline," *The Journal of Teacher Education.* Vol. 16, No. 2 (June, 1965), pp. 229-231.

Reavis, Charles A, and Whittacre, Frank R. "Professional Education of Teachers: A Spiral Approach," *Peabody Journal of Education.* Vol. 46, No. 5 (March, 1969), pp. 259-267.

Reid, O.W. "Innovation in Teacher Education," *Newsletter from the Asian Institute for Teacher Educators (Sponsored by Unesco).* Vol. 3, No. 3 (December, 1968), pp. 10-13.

Rowlands, Evan. "Modifying Classroom Behaviour of Trainee Teachers with a Walkie Talkie: A Research into the Feasibility of the Method," *The Australian Journal of Education* Vol., 12 No. 3 (October, 1968), pp. 244-251.

"Teacher Training in an African University," *Foreign Education Digest.* Vol. 31, No. 1 (July-September 1966), pp. 55-59.